Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

(Send K-E.)

E-48.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY
WASHINGTON, D. C.

FOREST ENTOMOLOGY. 20.

May 12, 1916.

Brief Information on THE PINE BARK LOUSE or RED SPRUCE TWIG GALL-LOUSE and METHODS OF CONTROL.

Evidence of Infestation.

A minute, winged or wingless, sap-sucking insect resembling in general appearance the common plant louse or "aphis" more or less covered with white cottony or mealy substance. On the white pine it appears as white cottony specks or patches on the trunk, branches and twigs; on the spruce, as white cottony spots on the twigs and concealed in cone-like swellings on the small twigs.

Seasonal History and Habits.

In the spring, about the time new growth starts on the white pine, the minute stages which have overwintered on the pine feed and develop. In about 10-14 days they reach maturity and deposit eggs which develop into winged forms and migrate to the spruce where they deposit eggs on the needles. The forms which hatch from these eggs pass the winter on the spruce twigs and in the spring, just before the buds open, produce a woolly covering and deposit a mass of eggs. The young, hatching from these eggs, enter the opening buds and change them into galls, in which a generation of winged forms develops. These migrate back to the pine and lay eggs on the needles for a generation which passes the winter on the bark. A wingless form continues to breed on the pine throughout the season.

Character of Damage.

Occasionally, individual small and even large pine and spruce trees may be weakened by this insect to such an extent as practically to stop growth, but the death of trees is seldom caused by it.

Remedies.

The damage is not sufficient to justify treatment of forest growth but both spruce and pine trees grown for shade or ornament can be protected by spraying with kerosene emulsion (See accompanying Brief) when new growth starts on the twigs of the pine and the buds are opening on the spruce.

A. D. HOPKINS,

Forest Entomologist.